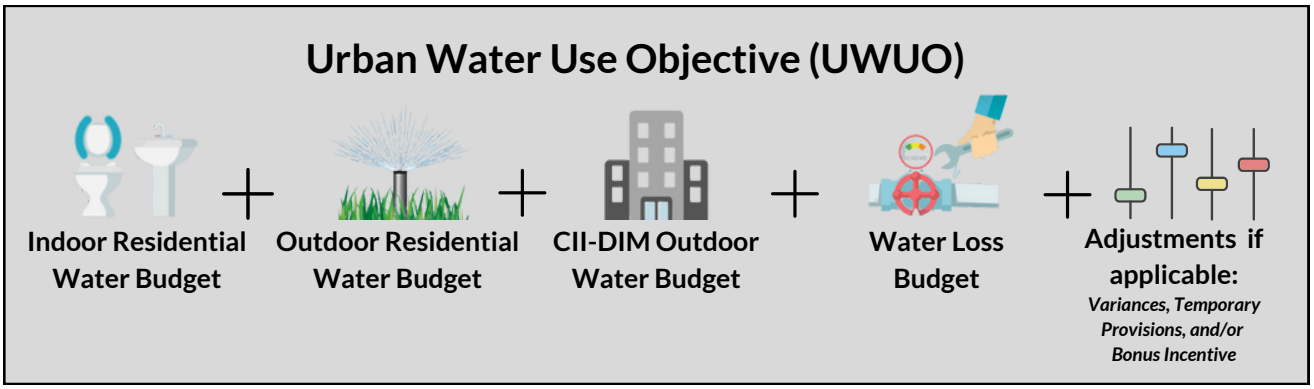
CALIFORNIA WATER EFFICIENCY PARTNERSHIP

Making Conservation a California Way of Life

Overview

SB 606 and AB 1668, signed in 2018 are intended to "Make Water Conservation a California Way of Life." In total, three water use standards (indoor residential, outdoor residential, and outdoor commercial, industrial and institutional (CII-DIM)), one water loss standard, and a variety of adjustments are used to calculate each urban water supplier's overall budget. The sum of these is known as an **Urban Water Use Objective (UWUO).**

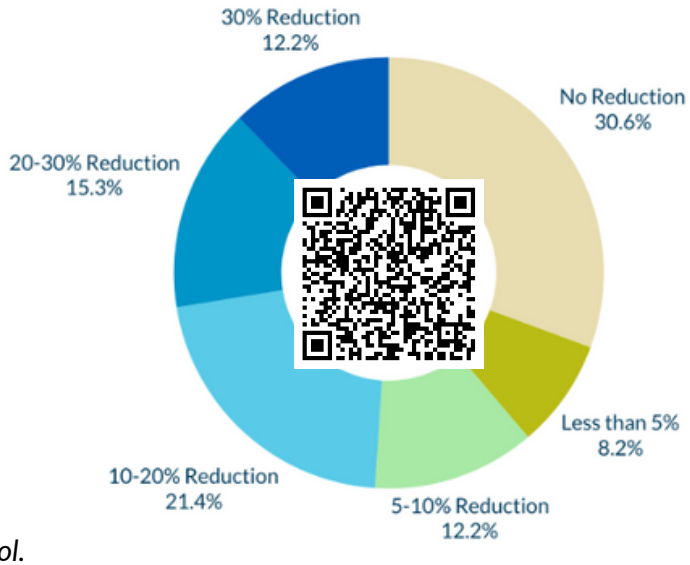


Adjustments to an UWUO can be made via variances, temporary provisions, and/or a bonus incentive for potable reuse, where applicable per supplier. A variance or temporary provision must receive prior approval by submitting a request to the State Water Board.

In addition to the UWUO, every urban supplier will need to comply with a set of CII performance measures. These performance measures are intended to enable water-usage benchmarking per CII classification category as well as establish BMPs for indoor and outdoor CII water use regardless of CII-DIM status. Even if an agency meets its UWUO, it will still need comply with the CII Performance Measures.

Provisional Data

In March 2024, the State Water Board released updated provisional data for every urban water supplier in the state used for their Water Use Objective Exploration Tool. The chart to the right shows projections for reductions needed by water suppliers in 2040 based on the State's provisional data. (**Note the provisional data does not include potential variances that suppliers may be able to utilize to adjust their UWUO**.)



Use the QR code to go to the Water Use Objective Exploration Tool.

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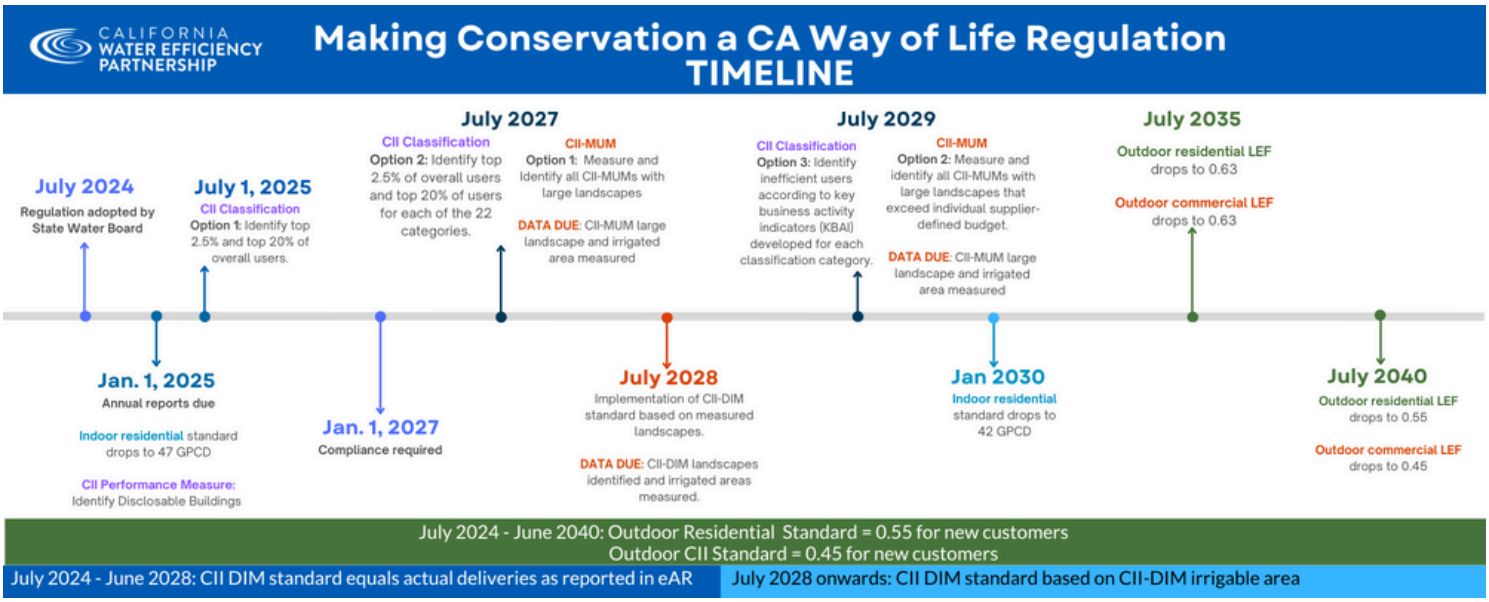
Timeline for Implementation and Reporting

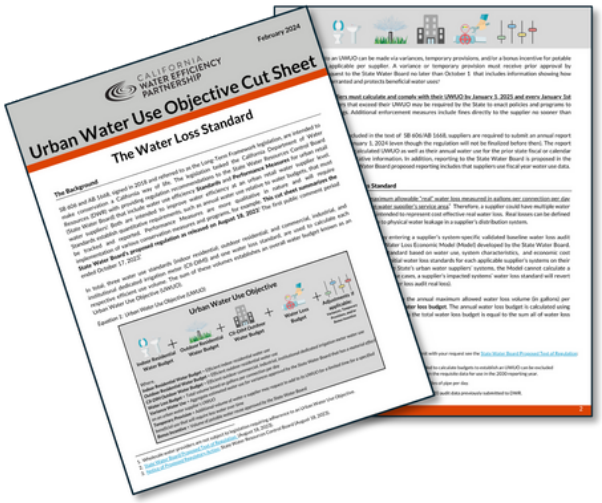


CalWEP is your implementation partner.

CalWEP has been making conservation a california way of life since 1991. We are uniquely suited to help water agencies meet and exceed their urban water use objective, and comply with CII performance measures.

AVAILABLE NOW:

- Cut sheets
- Framework 101 slide deck
- NAICS to ESPM Crosswalk
- Disclosable Buildings Toolkit



IN DEVELOPMENT:

- CII Classification Guidance Document
- CII DIM Identification Guidebook
- RFP Guidance and Template RFP
- Priority Matrix
- CalWEP LAM Viewer Powered by WaterView
- CalWEP Implementation Center
- Qualified Vendors List

CALIFORNIA WATER EFFICIENCY PARTNERSHIP

Making Conservation a California Way of Life

DIVE INTO THE DETAILS

Indoor Residential Water Budget

Indoor Residential Water Budget (gal/yr) = Indoor Residential Standard x Population x 365 days

The **Indoor Residential Standard** is the maximum allowed indoor water use measured in gallons per capita per day (GPCD). It is intended to represent efficient use. The Indoor Residential Standard will decrease over time.

Indoor Residential Standard by year

Compliance Year	Allowable GPCD
2020-2024	55
2025-2029	47
2030 onward	42

Outdoor Residential Water Budget

In the most general terms, the outdoor water budget consists of a supplier's residential landscape area, multiplied by an efficiency standard and a climate factor that's reflective of a supplier's unique service area conditions.

The annual outdoor water budget is calculated as follows:

Outdoor Residential Water Budget (gal/yr) = LAM x LEF x (ETo-Peff) x 0.62

Factor	Definition
LAM	Landscape Area Measurement includes the following landscape types: ◦ Irrigable-Irrigated (II), ◦ Irrigable-Not-Irrigated (INI) – up to 20% until LAM data is updated, ◦ Special Landscape Areas (SLA), and ◦ New Construction Aggregate data provided by DWR for all designations except for new landscapes installed beginning 1/1/2019.
LEF	Outdoor Residential Standard or landscape efficiency factor (unitless).
ETo	Reference Evapotranspiration (inches per year). Provided annually by DWR.
Peff	Effective Precipitation (inches per year). Capped at 25% of total precipitation or a lower value generated by the Cal-SIMETAW model. Provided by DWR.
0.62	Conversion Factor to generate units in gallons per year.

Outdoor Residential Water Budget (cont.)

The LEF is an efficiency factor determined by the State Water Board. It is proposed to decrease overtime as presented in the table below.

Compliance Start Date	Irrigable-Irrigated (II)	Irrigable-Not - Irrigated (INI)	Special Landscape Areas (SLA)	New Construction (post 1/1/2019)*
July 1, 2025	0.80	0.80 until LAM data updated	1.0	0.55
July 1, 2035	0.63	N/A assumes LAM data updated	1.0	0.55
July 1, 2040	0.55	N/A assumes LAM data updated	1.0	0.55

**For new homes built after the DWR Landscape Area Measurement (LAM) data was generated, the water budgets should be calculated with an LEF of 0.55.*

Example landscape types with associated LEFs from least efficient to most efficient.

Source: Adapted from State Water Resources Control Board Public Workshop October 4, 2023

Outdoor Commercial, Industrial, and Institutional Water Budget

CII Residential Water Budget (gal/yr) = ((DIM LA - DIM SLA) x LEF) + (DIM SLA x 1.0) x (ETo-Peff)x 0.62

Factor	Definition
DIM LA	Landscape Area Measurement includes the following landscape types: ◦ Irrigable-Irrigated (II) of connections served by dedicated irrigation meters (DIM)
DIM SLA	Landscape Area Measurement for **CII Special Landscape Area includes the following landscape:** ◦ Edible plants ◦ Recreation ◦ Recycled water
	◦ Slopes with live vegetation ◦ Ponds or lakes for sustaining wildlife ◦ Plant collections, botanical gardens, and arboretums ◦ Public pools ◦ Cemeteries (build before 2015)

Outdoor Commercial, Industrial, and Institutional (CII) Water Budget (cont.)

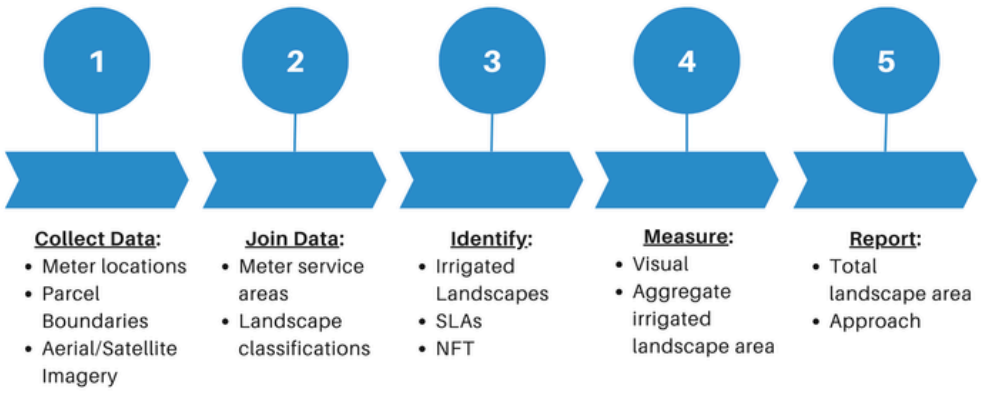
Factor	Definition
LEF	Outdoor CII Standard or landscape efficiency factor (unitless).
ETo	Reference Evapotranspiration (inches per year). Provided annually by DWR.
Peff	Effective Precipitation (inches per year). Capped at 25% of total precipitation or a lower value generated by the Cal-SIMETAW model. Provided by DWR.
0.62	Conversion Factor to generate units in gallons per year.

Starting July 1st 2028, suppliers will use total Irrigated Irrigable (II) square footage for all DIMs. The CII-DIM LEF is proposed to decrease overtime as presented in the table below

Compliance Start Date	Irrigable-Irrigated (II)	Special Landscape Areas (SLA)	New Construction (post 1/1/2019)*
July 1, 2028	0.80	1.0	0.45
July 1, 2035	0.63	1.0	0.45
July 1, 2040	0.45	1.0	0.45

**Applies to CII-DIM accounts subject to MWELO. See 23 CCR Section 495 (b)(6)*

DWR is currently mapping water agencies CII landscape area. This project is expected to be completed over the next few years. **Agencies can choose to generate their own CII landscape area measurements or wait and utilize the dataset provided by DWR as a technical resource for measuring their CII landscape area. Suppliers must distinguish CII-MUM area from CII-DIM area.** Below are simplified steps to identify and measure CII-DIM landscape area. CalWEP and the California Data Collaborative have a comprehensive guidebook for measuring DIMs available for members.



Water Loss Budget

The **water loss standard** is the maximum allowable "real" water loss measured in gallons per connection per day for each supply system in an urban water supplier's service area. Therefore, a supplier could have multiple water loss standards. The standards are intended to represent cost effective real water loss. Real losses can be defined as the volume of annual leakage due to physical water leakage in a supplier's distribution system.

The water loss standard is derived by entering a supplier's system-specific validated baseline water loss audit data and other related data into the Water Loss Economic Model (Model) developed by the State Water Board. The Model calculates the water loss standard based on water use, system characteristics, and economic cost data. The State Water Board provides initial water loss standards for each applicable supplier's systems on their water loss website. For about half of the State's urban water suppliers' systems, the Model cannot calculate a cost-effective water loss standard. In these cases, a supplier's impacted systems' water loss standard will revert to baseline loss (average of 2017-2020 water loss audit real loss).

The water loss standard is used to calculate the annual maximum allowed water loss volume (in gallons) per system. This maximum is referred to as the **water loss budget**. The annual water loss budget is calculated using Equation 2. For suppliers with multiple systems the total water loss budget is equal to the sum all of water loss budgets per system.

Equation 2: Annual Water Loss Budget

Water Loss Budget (gal/yr) = Water Loss Standard x (C or M) x days in the year

Where,
C = Number of total service connections
M = Length of the distribution system in miles

It is important to note the following as it relates to the water loss standard:

- The water loss standard is unique in that it was originally regulated under prior and independent 2015 legislation – Senate Bill 555 (Wolk, Chapter 679, Statues of 2015). Therefore, compliance can be enforced individually for water loss , unlike other standards within the Framework legislation.

- Water loss standards apply to systems with more than 200 connections. Systems with under 200 connections are not subject to a water loss standard if conditions in Water Code Section 980 (ddd) are met.

- The State Water Board cannot issue a notice or order to a supplier under the Framework legislation for exceeding the UWUO due solely to water loss budget overages if the State is already taking enforcement action under SB 555. The water loss standard guidelines and requirements are complex with many caveats not covered in this cut sheet. Therefore, it is recommended that a supplier review the entire regulation text for a complete understanding.

Commercial, Industrial, and Institutional (CII) Performance Measures

All urban water suppliers will also be required to meet a list of performance measures. These performance measures are intended to enable water-usage benchmarking per CII classification category as well as establish BMPs for indoor and outdoor CII water use regardless of CII-DIM status. A simplified rundown of the CII Performance Measures are as follows:

Action	Compliance Date	Ongoing Activities
Identify buildings that meet "disclosable buildings" threshold according to CEC and supply building owners information by request.	January 1, 2025	
Classification of CII properties with ENERGY STAR Portfolio Manager's broad categories plus 4 additional categories	July 1, 2027	Maintain 95%, assessed annually
BMP Choose Your Own Adventure PART I **Track 1:** ID top 2.5% CII Users & Top 20% CII Users **Track 2:** ID top 2.5% CII Users & Top 20% CII Users in each classification category **Track 3:** ID CII Users based on Supplier Defined Thresholds	Track 1: 06/2025 Track 2: 06/2027 Track 3: 06/2029	Maintain 95%, assessed on annual basis
BMP Choose Your Own Adventure PART II **Track 1 and 2:** Top 2.5% CII Users design implement 2 BMPs from each category **Track 1 and 2**: Top 20% CII Users design and implement 1 BMP from each category **Track 3:** Design and implement 1 BMP from each category	All Tracks: June 30, 2039	Maintain programs
Identify CII mixed-use meters (MUMs) associated with large landscapes *(large landscape threshold = ½ acre)*	**Option 1:** Identify all CII MUMs with large landscapes: July 1, 2027 **Option 2:** Identify all CII large landscapes that exceed their outdoor water budget by July 1, 2029	
DIM installation or in-lieu technology plus 2 BMPs on large landscapes *(large landscape threshold = ½ acre)*	July 1, 2039	Maintain 95%, assessed on annual basis